

Oak Fire Roadside Hazard Tree Proposal

Happy Camp/Oak Knoll Ranger District, Klamath National Forest

Background

The Happy Camp/Oak Knoll Ranger District, Klamath National Forest proposes the Oak Fire Roadside Hazard Tree project to reduce threats to public safety along National Forest Transportation System (NFTS) roads within the Oak Fire perimeter. This proposal treats approximately 39 miles within the 71,237-acre Oak Fire perimeter.

The project is located within the Indian Creek, Ukonom Creek-Klamath River, Dillon Creek and Clear Creek 5th field watersheds. The project is about two to ten miles Southwest of Happy Camp, California, in Siskiyou County: Township 15 North, Range 5 East, Sections 15-16, 21-25, 27, and 36; Township 15 North, Range 6 East, Sections 1-4, 9-12, 14-16, 21-23, and 26-29; Township 5 North, Range 7 East, Sections 5-7; Township 16 North, Range 6 East, Sections 1-2, 11-13, 24-25, and 36; and Township 16 North, Range 7 East, Sections 16-21, and 29-32, Humboldt Meridian. Vicinity and project maps are enclosed. Elevation ranges from 1,200 to 6,000 feet.

Management Direction

The 1995 Klamath National Forest Land and Resource Management Plan (Forest Plan, as amended (as of July 29, 2010)) includes Standards and Guidelines from the Northwest Forest Plan. The Forest Plan provides forest-wide and management area (MA) direction for project-level projects. There is general guidance in the forest plan to maintain roads - **Forest-wide Standard and Guide 20-3: Operate and maintain roads as documented in the Road Management Objectives (RMO) (Forest Plan p. 4-43).** Then there is specific direction for some management areas regarding road maintenance which is detailed below in Table 1 along with miles of road to be treated in each management area.

Table 1: Management Areas found within Proposed Treatment Areas.

Management Area	Approximate Miles Proposed for Treatment*	Pages in Forest Plan	Direction Pertinent to this Proposal
Late Successional Reserve – MA 5	6.7 miles	4-82 to 4-89	MA5-23: Road maintenance may include felling hazard trees along rights-of-way. Leaving material on site should be considered if available coarse woody debris (CWD) is inadequate. Topping trees should be considered as an alternative to felling. MA5-30(6): Removal of snags and logs may be necessary to reduce hazards to humans along roads and trails and in or adjacent to campgrounds. Where materials must be removed from the site, as in a campground or on a road, a salvage sale is appropriate. In other areas, such as along roads, leaving material on site should be considered. Also, material will be left where available CWD is inadequate.
Managed Wildlife Area – MA 6	2.7 miles	4-95 to 4-96	No management area-specific Standard & Guide; refer to Forest-wide Standard & Guides.

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Management Area	Approximate Miles Proposed for Treatment*	Pages in Forest Plan	Direction Pertinent to this Proposal
Cultural Area – MA 8	2.8 miles	4-101 to 4-102	MA8-12: Schedule no timber harvest from these areas. Salvage activities may occur within these areas under special circumstances (for example, in response to catastrophic events). Salvage efforts shall be closely coordinated with the Karuk Tribe of California.
Riparian Reserves – MA 10	7.4 miles	4-106 to 4-114	MA10-53: Fall roadside safety hazard trees. Allow the removal of these trees where woody debris requirements have been met. MA10-58: Fell trees in RRs when they pose a safety risk. Keep felled trees on-site when needed to meet CWD objectives. MA10-59: Use directional felling to protect stream banks in cases where felling trees is used to benefit riparian-dependent resources.
Retention Visual Quality Objective – MA 11	Less than ¼ mile	4-115 to 4-116	MA11-7: In some cases because of fire salvage efforts, past management activities and changing management objectives, the existing visual conditions may not currently meet the desired visual goal of Retention. Such areas should be rehabilitated over time to meet Retention VQOs. Rehabilitation may be achieved through alteration, concealment, or removal of obtrusive elements...
Designated and Recommended Scenic Rivers – MA 12	1.7 miles	4-117 to 4-119	No management area-specific Standard & Guide; refer to Forest-wide Standard & Guides.
Partial Retention Visual Quality Objective – MA15	8 miles	4-126 to 4-127	No management area-specific Standard & Guide; refer to Forest-wide Standard & Guides.
General Forest – MA 17	10.4 miles	4-131 to 4-132	No management area-specific Standard & Guide; refer to Forest-wide Standard & Guides.

Note: Approximately 3 miles of road are bordering private property.

In addition to Forest Plan direction, the interdisciplinary team (IDT) considered guidance from mid-level assessments or guidance documents, including *Marking Guidelines for Fire-Injured Trees in California* (Smith and Cluck, 2011) and *Hazard Tree Guidelines for Forest Service Facilities and Roads in the Pacific Southwest Region* (Angwin, et. al, 2012).

Table 2: Inventoried Released Roadless within Proposed Treatment Areas.

Forest-wide Management	Appx. Miles Proposed for Treatment*	Pages in Forest Plan	Direction Pertinent to this Proposal
Siskiyou Inventoried Released Roadless	1.3 ¹	4-38	MA14-1: Released roadless areas will be managed according to the objectives of the management area in which they occur.

1 – The Siskiyou Inventoried Released Roadless GIS layer overlaps roads in three sections. These roads are tie-through roads, MVUM level 2 or 3.

The interdisciplinary team designed the project to be consistent with all applicable law, regulation, policy, and direction.

Purpose and Need for Action

As snags continue to decay, break, and fall as a result of the Oak Fire, surface fuel loading and the severity and intensity of future fires will increase. Increased fire intensities and fallen snags will inhibit the effective control of future fires and put fire suppression crews at increased risk. Fallen hazard trees will also impact road access along miles of roadways, impairing fire suppression efforts. Local communities and residential enclaves adjacent to forests that are part of a larger fire-adapted ecosystem. The goal of these areas is to protect lives and properties of local communities.

- There is a need for public safety because the Oak Fire created unsafe conditions for the public and for adjacent private landowners. Ways to meet the need to provide for public safety include:
 - Removing hazards created by fire-killed and damaged trees along public roads.
- There is a need for safe conditions for forest workers, firefighters, tree planters, and recreationists. Ways to provide for safety include:
 - Removing hazardous fire-killed trees along 39 miles of road identified within the Oak Fire.

Existing and Desired Condition

The table below provides a summary of the existing and desired conditions, which were considered during development of the purpose and need and proposed action.

Table 3: Summary table of the existing and desired conditions

Resource Area or Statement of Need	Existing Conditions	Desired Conditions	Need for Change
There is a need to improve public safety because the Oak Fire created unsafe conditions for the public and adjacent private landowners.	Unsafe conditions due to hazards from fire-killed trees along public roads and adjacent to private property.	Public safety is a part of several standards and guidelines in the Forest Plan (e.g., 12-820-9, 22-1, 22-2, 22-8).	The existing situation is not safe; improvement of safety will help to meet local public needs and demand as expressed by community leaders, concerned and interested groups and potentially affected interests (Forest Plan, Standard 25-3, page 4-64)

Proposed Action

The proposed action was designed to meet the purpose and need of the project. The proposed action will treat approximately 39 miles of roads within the Oak Fire perimeter. Of the system roads within the fire perimeter, roads were selected for treatment because they are needed either for public access or administrative use (i.e. fire suppression tactics) and were burned at a moderate to high severity resulting in hazard trees along the roadway. Map of the proposed treatments are enclosed.

1) Roadside Hazard Tree Removal (39 Miles)

Trees adjacent to National Forest System roads or along county roads adjacent to National Forest System lands within the project area will be evaluated for hazard tree removal. Two different assessments will be made to determine roadside hazard trees. First, to identify fire-injured or fire-killed trees that have a 70 percent or greater chance of dying within three to five years, the following guidelines will be used: Report #RO-11-01 “Marking Guidelines for Fire-Injured Trees in California” (Smith and Cluck, 2011). This guideline only looks at a tree that has been fire killed or fire-injured; it does not give it a rating towards being a hazard to the road. These fire-injured or fire-killed trees must

have a 70 percent or greater chance of dying within three to five years in order to be considered a hazard tree. This guideline will also be used in the salvage harvest proposed action below.

Second, for trees that do not have a 70 percent or greater chance of dying within three to five years due to fire-injury, Report #RO-12-01 “Hazard Tree Guidelines for Forest Service Facilities and Roads in the Pacific Southwest Region” (Angwin et al 2012) will be used to identify if these trees are moderate or high potential hazards to the roadway. This report provides guidance on whether or not the tree is a hazard to a road. The tree can be fire-killed, green with a high hazard potential, or not fire affected but dead with a high hazard potential. Trees identified as having high hazard potential would be removed or abated and left on site where necessary to meet the requirements of the Forest Plan. Trees identified as having a moderate hazard would be monitored and evaluated for possible future removal.

Third, for trees equal to or greater than 45 inches in diameter, we will identify any fire-injured trees that have a 90 percent probability of dying in the next three to five years using the criteria in Report #RO-11-01 “Marking Guidelines for Fire-Injured Trees in California” (Smith and Cluck, 2011). Those fire-injured trees that have 90 percent or greater probability of mortality would be considered potential hazards and would be marked for cutting, and either removed or left on site if necessary to meet the requirements of the Forest Plan (e.g., for hazard trees within riparian reserves, as described below).

Removal of merchantable roadside hazard trees would include the use of ground-based and skyline logging systems.

Roadside hazard trees in riparian reserves

In stream course riparian reserves, all hazard trees will be felled according to the hazard evaluation described above; the difference is in what happens to a hazard tree once it has been felled. Within stream course riparian reserves, roadside hazard trees equal to or greater than 24 inches diameter at breast height will be felled and left on site if the following criteria are met: 1) the faller can safely fell the hazard tree away from the road without causing excessive damage to residual tree crowns or boles; 2) removal would cause excessive soil disturbance such as gouging; 3) the tree does not lean towards the road; 4) once fallen the tree would not disrupt flow through a drainage structure; 5) where leaving the felled tree would not contribute to or cause excessive fuel loading (this threshold may be met sooner in areas identified for fuels reduction); and 6) felled trees that are the furthest from the road, below the road, and on steeper slopes below the road will be favored for leaving. Hazard trees in stream course riparian reserves where these criteria are not met, or that are less than 24 inches in diameter at breast height, will be felled and removed.

Appendix A: Maps

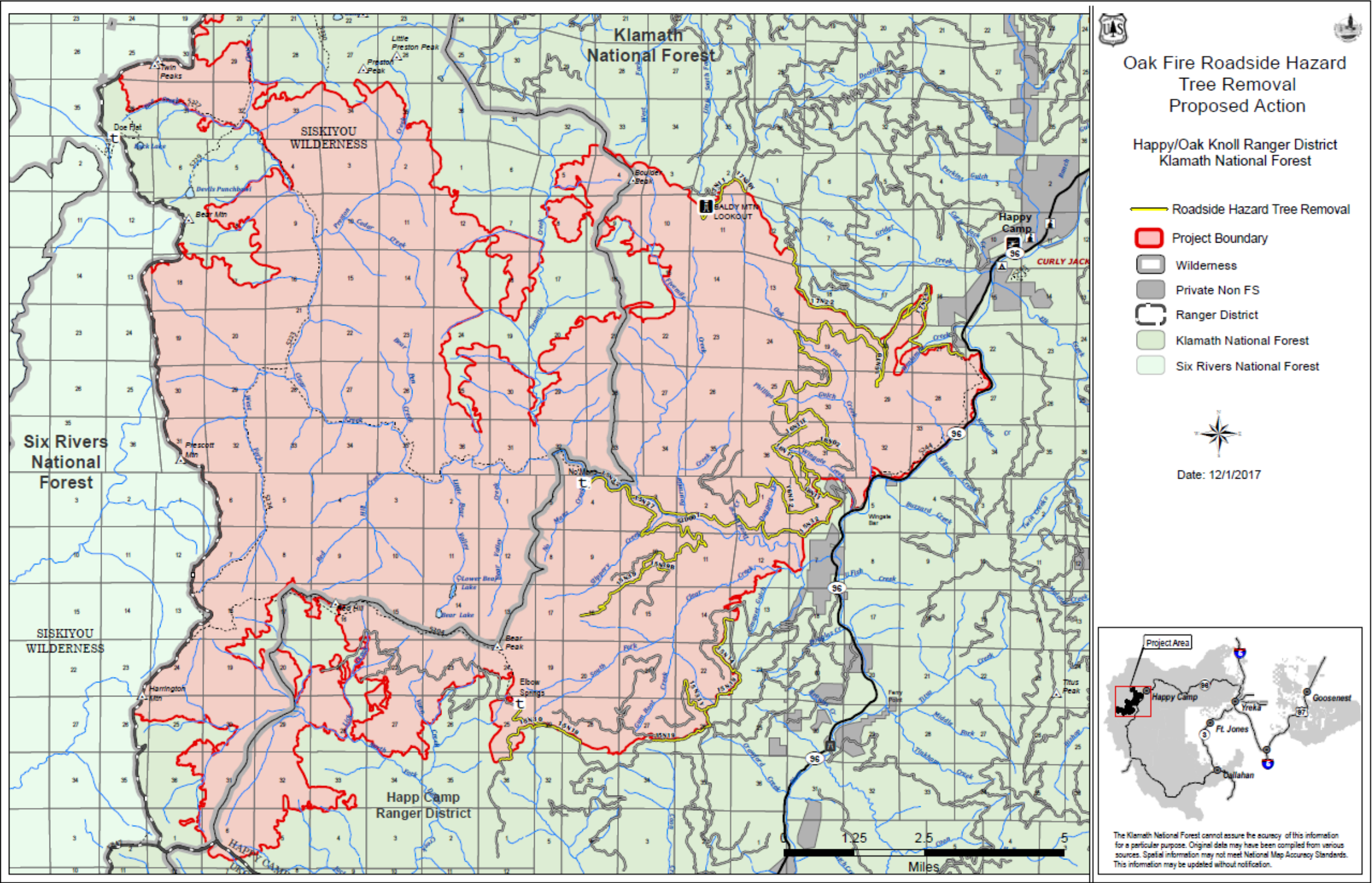


Figure 1: Proposed Action map.